

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PLR WORLDWIDE SALES LIMITED,
Petitioner

v.

FLIP PHONE GAMES, INC.,
Patent Owner

Case No. IPR2024-00209
Patent No. 9,427,662

PATENT OWNER'S NOTICE OF APPEAL

Pursuant to 35 U.S.C. §§ 141, 142, and 319; 28 U.S.C. § 1295; 37 C.F.R. §§ 90.2–90.3; Federal Rule of Appellate Procedure 15; and Federal Circuit Rule 15, Patent Owner Flip Phones Games, Inc. (“Patent Owner”) hereby gives notice that it appeals to the United States Court of Appeals for the Federal Circuit from the Patent Trial and Appeal Board’s Final Written Decision dated April 24, 2025 (Paper 28), and from all underlying findings, orders, decisions, rulings, and opinions adverse to Patent Owner, including, without limitation, those underlying the Final Written Decision. A copy of the public Final Written Decision is attached to this Notice.

In accordance with 37 C.F.R. 90.2(a)(3)(ii), Patent Owner further notes that the issues on appeal include all issues decided adversely to Patent Owner in any orders, decisions, rulings, and opinions. This will likely include, but is not limited to:

1. The Board’s determination that Petitioner established that claims 1–11 and 13–19 of U.S. Patent No. 9,427,662 (“the ’662 Patent”) are unpatentable under 35 U.S.C. § 103, and any finding or determination (factual or legal) supporting that determination;
2. Whether the Board erred by ruling that the Petition established that the cited prior art disclosed providing a server “user-identification information” in connection with contacting a server for “hot spot information” to download, as recited in claims 13–19;
3. Whether references that are prior art to the ’662 Patent under only pre-AIA

35 U.S.C. § 102(e), including WO 2008/008038 A1 to Ho, are printed publications that are usable in an *inter partes* review proceeding under 35 U.S.C. § 311(b);

4. Whether the Board erred in affording weight to Petitioner's expert testimony which substantially repeated the same analysis as stated in the Petition;

5. Whether the Board erred in any finding or determination supporting or relating to the above-referenced issues and any other issues decided adversely to Patent Owner in any orders, decisions, rulings, or opinions of the Board.

In accordance with 37 C.F.R. 90.2(a)(1), copies of this Notice of Appeal are being filed simultaneously with the Patent Trial and Appeal Board and with the Director of the United States Patent and Trademark Office. In addition, this Notice of Appeal, along with the required docketing fees, is being filed electronically with the Clerk of the United States Court of Appeals for the Federal Circuit.

Dated: August 26, 2025

By: /Michael Morlock/
Michael Morlock
Reg. No. 62,245
Lead Counsel for Patent Owner

CERTIFICATE OF SERVICE

I hereby certify that, in addition to being filed electronically through the Patent Trial and Appeal Board's P-TACTS System, the original version of the foregoing **PATENT OWNER'S NOTICE OF APPEAL** was filed on August 26, 2025, with the Director of the United States Patent and Trademark Office, by emailing the email address indicated on United States Patent and Trademark Office's web page for the Office of the General Counsel, and by Express Mail at the following address:

Director of the United States Patent and Trademark Office
c/o Office of the General Counsel
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450.

The undersigned also hereby certifies that a true and correct copy of the foregoing **PATENT OWNER'S NOTICE OF APPEAL** and the filing fee is being filed via the electronic filing system, CM/ECF, with the United States Court of Appeals for the Federal Circuit on August 26, 2025, and one true and correct copy of the foregoing was sent by Express Mail on August 26, 2025 to the Clerk's Office of the United States Court of Appeals for the Federal Circuit, at the following address:

Office of the Clerk
United States Court of Appeals for the Federal Circuit
717 Madison Place, N.W., Suite 401
Washington, DC 20439

The undersigned hereby certifies that on the date below a copy of this
PATENT OWNER'S NOTICE OF APPEAL was served on Petitioners by
filing through the P-TACTS System and by electronic delivery via email to the
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Dated: August 26, 2025

By: /Michael Morlock/
Michael Morlock
Reg. No. 62,245
Lead Counsel for Patent Owner

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PLR WORLDWIDE SALES LTD.,
Petitioner,

v.

FLIP PHONE GAMES, INC.,
Patent Owner.

IPR2024-00209
Patent 9,427,662 B2

Before DAVID C. MCKONE, DANIEL J. GALLIGAN, and
SCOTT B. HOWARD, *Administrative Patent Judges*.

Opinion for the Board filed by *Administrative Patent Judge*
SCOTT B. HOWARD.

Opinion Concurring in Part and Dissenting in Part filed by
Administrative Patent Judge DANIEL J. GALLIGAN.

HOWARD, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining Some Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. Background and Summary

PLR Worldwide Sales Ltd. (“Petitioner”) filed a Petition for *inter partes* review (Paper 2, “Pet.”) challenging claims 1–20 (“challenged claims”) of U.S. Patent No. 9,427,662 B2 (Ex. 1001, “the ’662 patent”). Flip Phone Games, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 6. With our authorization, Petitioner filed a Reply to Patent Owner’s Preliminary Response (Paper 7) and Patent Owner filed a Preliminary Sur-reply (Paper 8). We instituted an *inter partes* review of claims 1–20 of the ’662 patent on all grounds of unpatentability alleged in the Petition. Paper 9 (“Institution Decision” or “Inst. Dec.”).

After institution of trial, Patent Owner filed a Response (Paper 12, “PO Resp.”), Petitioner filed a Reply to Patent Owner’s Response (Paper 21 “Pet. Reply”), and Patent Owner filed a Sur-reply to Petitioner’s Reply (Paper 22, “PO Sur-reply”).

An oral hearing was held on February 6, 2025, and the record contains a transcript of this hearing. Paper 27 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–11 and 13–19 are unpatentable and that Petitioner has not shown by a preponderance of the evidence that claims 12 and 20 are unpatentable.

B. Real Parties in Interest

Petitioner identifies itself and Playrix Holdings Ltd. as real parties in interest. Pet. 1.

Patent Owner identifies itself as the real party in interest. Paper 3, 1 (Patent Owner's Mandatory Notices).¹

C. Related Matters

Both parties identify the following district court proceeding as a related matter: *Flip Phone Games, Inc. v. PLR Worldwide Sales Ltd.*, Case No. 2:23-cv-00139-JRG (E.D. Tex.). Pet. 2; Paper 3, 1.

The parties also identify additional *inter partes* review proceedings. See Pet. 2; Paper 3, 1.

D. The '662 Patent

The '662 patent is titled “Methods and Systems for Providing In-Game Hot Spots” and “relates generally to systems and methods for providing in-game hot spots to a mobile communication device.” Ex. 1001, code (54), 1:11–13. “A hot spot can be thought of as a location or item, sometimes hidden within the game, that triggers additional specialized content when activated by a user or some other in-game element.” *Id.* at 1:67–2:3; see also *id.* at 4:13–15 (“Generally, a hot spot is an in-game feature that includes an activation element and a content element that is triggered by the activation element.”).

The '662 patent explains that “all video games tend to have a popularity life span” and “[a]s game elements become increasingly familiar to players, the game may hold less surprises and/or no longer present a challenge to the user,” such that “games that hold user interest for longer periods of time are more valuable than games that users leave behind quickly.” Ex. 1001, 1:31–44. Taking these considerations into account, the

¹ Patent Owner did not paginate its Mandatory Notices. All citations are based on the page after the title page being page 1.

'662 patent discloses systems and methods that provide hot spots of triggered content within the gaming environment of a mobile video game on a mobile communication device. *Id.* at 1:64–67. According to the '662 patent, providing hot spots of triggered content within a mobile gaming environment, and updating in-game hot spot information, may prolong user interest in the game, as it may “allow game companies to keep game elements fresh and prolong user enjoyment of the game.” *Id.* at 2:3–6, 4:24–31. For example, new interactive items and/or hidden features may be placed within a particular scene in the game so that the user has something new to look at or trigger (sometimes unexpectedly). *Id.* at 4:28–35.

The '662 patent describes a mobile communication device programmed to: operate a video game; contact a remote system to check for hot spot information to use in the video game; download the hot spot information to the communications device from a server; designate a location in-game for activating the hot spot; detect manipulation of the designated location as activating the hot spot; and display content when the device's user activates the hot spot. Ex. 1001, 2:13–23.

A hot spot's activation element may comprise an area location or an item, sometimes hidden in the game, that can be triggered by a user or some other in-game element. Ex. 1001, 2:31–33. The hot spot information may identify content (a content element) to be displayed when the hot spot is activated, such as a promotional message; non-promotional content; a message including a hint related to the game; and a new game level or an item useful in playing the game. *Id.* at 2:38–48. More particularly, hot spot information may include information that allows the mobile communication device to designate a location in-game (such as an item or hidden area) for

activating the hot spot. *Id.* at 4:15–23. When the location is electronically manipulated in some way during game play, such as by touching it, running over it, hitting it with an item, etc., the content associated with the hot spot may be displayed. *Id.*

Figures 2A and 2B of the '662 patent are reproduced below.

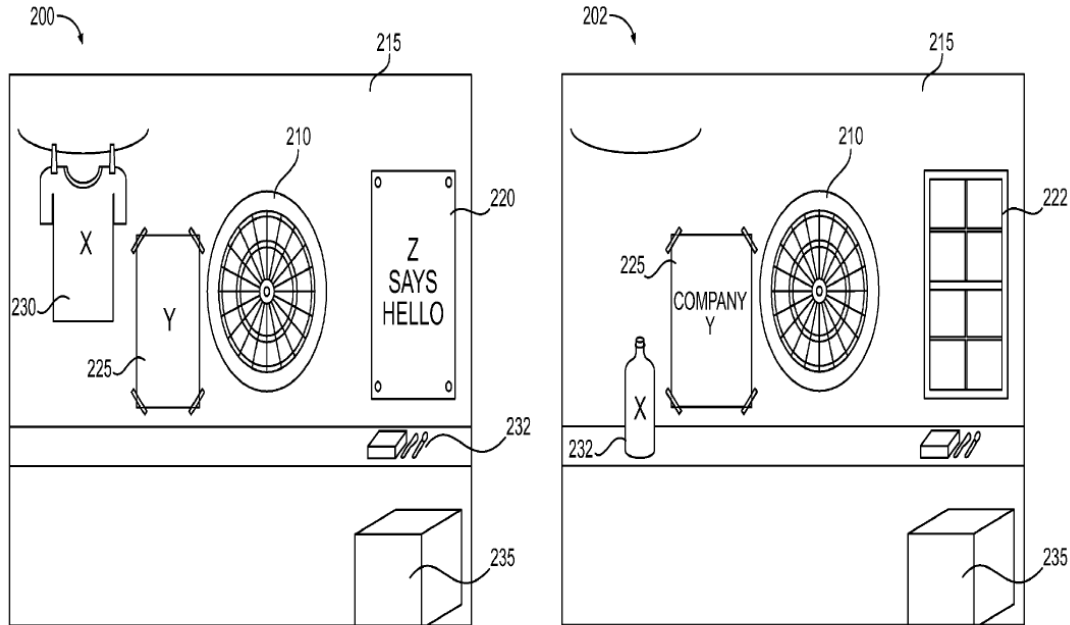


FIG. 2A

FIG. 2B

Figures 2A and 2B “are diagrams of an exemplary scene in a video game played on a mobile communication device.” Ex. 1001, 3:48–51; *see also id.* at 6:44–46. The exemplary scene is a darts game, which includes dart board 210. *Id.* at 6:46–48. Figure 2A shows several items 210, 220, 225, 230, and 235 within scene 200. *Id.* at 6:52–53. Any of these items may be defined as hot spots on the mobile communication device. *Id.* at 6:53–55. For instance, if the user throws a dart that hits shirt 230, a promotional message associated with third party X may pop up on screen. *Id.* at 6:55–57. Messages might also be displayed if the user activates hot spots on poster

225 or chalk board 220. *Id.* at 6:59–61. Additionally, if the user activates a hot spot defining a piece of chalk 232, a new message might be drawn on chalk board 220. *Id.* at 6:61–63.

As shown in Figure 2B, a hot spot may be assigned to window 222. Ex. 1001, 7:22–23. When the user hits the window with a dart, the hot spot is activated, and activation causes the mobile communication device to display content, such as an animation of window 222 shattering. *Id.* at 7:23–26. The hot spot information may include coordinates for defining the placement and/or boundaries of the window, the window graphic, the shatter animation content, and coordinates for displaying the animation. *Id.* at 7:28–32.

E. Illustrative Claim

The '662 patent includes 20 claims, all of which are challenged. Claims 1 and 13 are independent claims. Claim 1, which is illustrative, is reproduced below.

1. [1(pre)] A method for retrieving and displaying a hot spot associated with a video game operable on a mobile communication device, comprising:
 - [1(a)] a) contacting a server for hot spot information to download, comprising providing the server with at least one of: a game for which hot spot information is desired, a scene for which hot spot information is desired, an element for which hot spot information is desired, the model type of the mobile communication device, the service plan to which the mobile device belongs, the service provider for the mobile communications device, the base location of the mobile communication device, the current location of the mobile communication device, a version identifier for hot spot information currently on the mobile communication device, user-identification information, preset location, amount of game-play time, game score, and level of play;

[1(b)] b) downloading hot spot information from the server to the mobile communication device, the hot spot information comprising:

[1(b)(1)] 1) hidden content for presenting to the user when the hot spot is activated; and

[1(b)(2)] 2) coordinate information;

[1(c)] c) designating a non-promotional location in-game associated with activating the hot spot based on the coordinate information;

[1(d)] d) displaying an object at the designated non-promotional location; and

[1(e)] e) displaying the hidden content when the user activates the hot spot.

Ex. 1001, 14:36–65; *see also* Pet. v (adding brackets).

F. Prior Art and Asserted Grounds

We instituted trial on the following grounds:

Claims Challenged	35 U.S.C. § ²	References/Basis
1–11, 13–19	103(a)	Ho, ³ Aoki ⁴
1–20	103(a)	Jiau, ⁵ Aoki

² The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. Petitioner applies the pre-AIA version. *See* Pet. 11, 13, 36, 58 (arguing that asserted prior art references are prior art under various provisions in pre-AIA § 102). Patent Owner agrees. PO Resp. 3–5 (arguing that claims of the ’662 patent can rely on a June 2007 filing date). Because we would reach the same result under the either version of the statute, we need not determine which one applies.

³ WO 2008/008038 A1, published January 17, 2008, filed designating the United States July 12, 2006 (Ex. 1004). All citations are to the native pagination.

⁴ US 2002/0120589 A1, published August 29, 2002 (Ex. 1005).

⁵ WO 2000/070489, published November 23, 2000 (Ex. 1006). All citations are to the native pagination.

Claims Challenged	35 U.S.C. § ²	References/Basis
1–11, 13–19	103(a)	Ho, Kim ⁶
1–20	103(a)	Jiau, Kim

Petitioner relies on the testimony of José Zagal, Ph.D. (Ex. 1003). Patent Owner relies on the testimony of Robert Akl, D. Sc. (Ex. 2006). Neither Dr. Zagal nor Dr. Akl were cross-examined in this proceeding.

II. ANALYSIS

A. Legal Standards

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under 35 U.S.C. § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) if in evidence, “secondary considerations” of non-obviousness such as “commercial success, long-felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. “While the sequence of these questions might be reordered in any particular case,” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the United States Court of Appeals for the Federal Circuit has repeatedly emphasized that “it is error to reach a conclusion of obviousness until all those factors are considered,” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328 (Fed. Cir. 2016).

Because Patent Owner does not address objective evidence of non-obviousness, we focus solely on the first three *Graham* factors.

⁶ US 6,928,414 B1, issued August 9, 2005 (Ex. 1007).

B. Level of Ordinary Skill in the Art

The level of ordinary skill in the pertinent art at the time of the invention is a factor in how we construe patent claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). It is also one of the factors we consider when determining whether a patent claim would have been obvious over the prior art. *See Graham*, 383 U.S. at 17–18.

Factors pertinent to a determination of the level of ordinary skill in the art include “(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Envtl. Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 696–97 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). “Not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case.” *Id.*

Petitioner contends that a person having ordinary skill in the art at the time of the invention would have had “an undergraduate degree in game design, computer science, computer engineering, or a related field, with at least two years of experience working with computer gaming systems or software application development,” and that “[l]ess work experience may be compensated by a higher level of education or vice versa.” Pet. 10–11 (citing Ex. 1003 ¶¶ 73–78).

Patent Owner argues for a slightly different level of ordinary skill in the art: “a bachelor’s degree in electrical engineering, computer engineering, computer science, or a similar field, along with one to two

years of experience developing or programming video games or video game systems, or similar types of computer systems.” PO Resp. 2 (citing Ex. 2006 ¶ 29). Patent Owner further argues that the person having ordinary skill in the art “may have additional education that might substitute for some of the experience, and additional experience might substitute for some of the educational background.” *Id.* (citing Ex. 2006 ¶ 29). According to Patent Owner, Petitioner’s proposal does not require experience in programming video games. *Id.* at 3. However, Patent Owner states, “[t]his difference does not materially affect the analysis presented below.” *Id.*

We see very little difference between the parties’ respective proposals. We adopt Patent Owner’s marginally more specific proposal. Additionally, because we would reach the same conclusions under Petitioner’s proposal, we agree with Patent Owner that this does not affect our analysis.

C. Claim Construction

We apply the same claim construction standard used in the federal courts, in other words, the claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), which is articulated in *Phillips*. See 37 C.F.R. § 42.100(b) (2023). Under the *Phillips* standard, the “words of a claim ‘are generally given their ordinary and customary meaning,’ which is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips*, 415 F.3d at 1312–13.

Petitioner “does not believe any terms require construction to resolve the patentability disputes because the challenged claims are rendered

unpatentable by the cited art under any reasonable interpretation of the claims.” Pet. 11.

Patent Owner argues that the plain and ordinary meaning of “downloading” excludes “real-time fetching of data by a client from a server system.” PO Resp. 34; *see also* PO Sur-reply 16–17; Tr. 32:22–34:7.

Because we need not expressly construe any claim terms, we do not construe any terms of the ’662 patent. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Matal*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Whether Ho is a “Printed Publication” Prior Art Within the Meaning of 35 U.S.C. § 311(b)

Patent Owner argues that because Ho was published after the filing date of the ’662 patent, Ho is not a “printed publication” within the meaning of 35 U.S.C. § 311(b). PO Resp. 30–33; PO Sur-reply 15–16.

The Federal Circuit has rejected this argument, holding that: a published patent application is, by its literal terms, a “printed publication.” So, when § 311(b) permits IPR challenges based upon “prior art . . . printed publications,” it includes within its literal scope challenges based upon a published patent application. And, by virtue of § 102(e)(1), a published patent application—this specific type of “printed publication”—is deemed prior art as of its filing date. Therefore, the plain language of §§ 311(b) and 102(e)(1) permits IPR challenges based upon published patent applications, and such published patent applications can be deemed prior art in IPRs as of their filing date.

Lynk Labs, Inc. v. Samsung Elecs. Co., 125 F.4th 1120, 1127 (Fed. Cir. 2025). Thus, Petitioner asserts permissible grounds of unpatentability under

35 U.S.C. § 311(b) by arguing that claims 1–20 are unpatentable under 35 U.S.C. § 103(a) on the basis of Ho, which is a prior art printed publication, and either Aoki or Kim.

E. Obviousness Based on Ho and Aoki

Petitioner argues that claims 1–11 and 13–19 would have been obvious over Ho and Aoki. Pet. 3, 11–36. For the reasons set forth below, Petitioner has shown by a preponderance of the evidence that claims 1–11 and 13–19 are unpatentable.

1. Overview of Ho

Ho is titled “An Incentive-Based Video Gaming System” and relates to “incorporating [an] interactive information element into a video game.” Ex. 1004, code (54), 1:5–7.

Ho describes prior systems as offering “in-game advertising to ‘capture’ eyeballs”; however, the advertisements were “restricted to in-game . . . non-interactive in-game elements” and, thus, provided “no impetus for the player to pay more attention,” e.g., “to the static advertisements.” Ex. 1004, 1:19–31. Ho generalizes the prior technology as having “no methods available to incorporate interactive and update-able advertisements into existing video games.” *Id.* at 1:35–37.

Ho “provide[s] a method of playing a video game with at least one interactive information element incorporated within the game,” e.g., “an icon in the game, a character in the game[,] or an item in the game.” Ex. 1004, 2:1–12. “[T]he player ha[s] an option to engage the at least one interactive information element” *Id.* at 2:2–5. Preferably, “gameplay is not disrupted when the . . . element is engaged[,] the . . . element is not mandatory for continuation of gameplay[,] the . . . element may be either

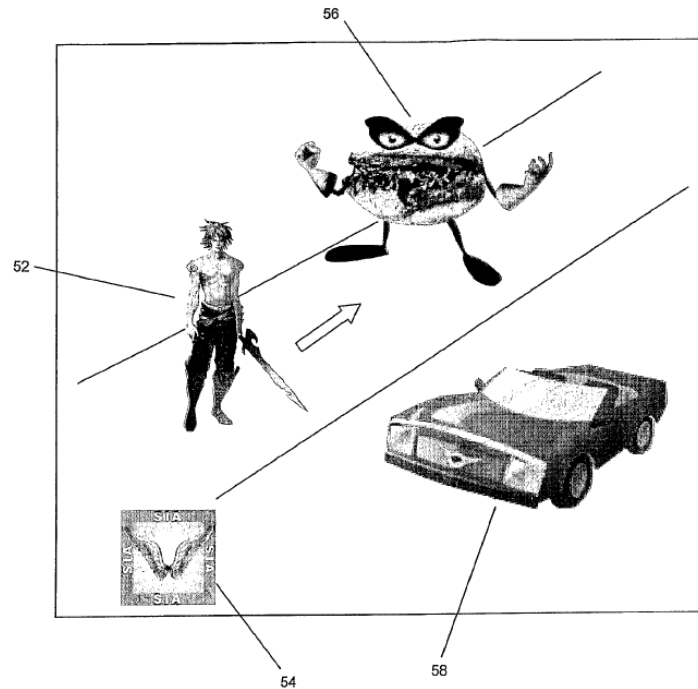
advertisements or public announcement services,” and “the . . . element is able to be updated.” *Id.* at 2:1–18.

“[I]ncorporating . . . [the] element into a video game[] include[s]: adding an engageable module into the video game; updating the engageable module with the . . . element; and locating the . . . element at a juncture in the video game.” Ex. 1004, 2:35–38. “The juncture . . . may be either a specific event . . . or a specific location in the game.” *Id.* at 3:1–2.

Preferably, “the engageable module may be updated either locally or from a remote source via a network.” *Id.* at 2:40–3:1.

“Engagement of the . . . element may activate an action,” e.g., “an on-screen presentation, an electronic token generation.” Ex. 1004, 3:10–12. “The on-screen presentation may be either within the course of gameplay or in a sub-screen in the game.” *Id.* at 3:12–13. “Electronic tokens may also be stored either locally or on a network.” *Id.* at 3:13–14.

Ho’s Figure 3, reproduced below, illustrates examples of interactive information elements being incorporated in a MMORPG (massively multiplayer online role playing game). Ex. 1004, 5:1–2.



As shown in Figure 3, at a particular juncture in gameplay, a character 52 in the MMORPG controlled by the player encounters some interactive information elements such as (i) a “wings” button 54 to enable character 52 to fly (an example of an icon in the game), (ii) a hamburger monster 56 (an example of a character in the game), and (iii) a car 58 (an example of an item in the game). *Id.* at 5:1–25. Each interactive information element 54, 56, and 58 may be linked/related to a particular advertiser. *Id.* Interactive information elements 54, 56, and 58 may be engaged in different ways, with the way of engaging interactive information elements 54, 56, 58 depending on the type of element being engaged. *Id.* For example, hamburger monster 56 may be engaged only when character 52 fights and successfully slays the hamburger monster, car 58 may be engaged when character 52 enters the car, and “wings” button 54 may be engaged (for example when character 52 wishes to fly) by clicking on icon 54 using a pointer, or by using an enclosure moving between different icons to highlight icon 54 to engage the

icon. *Id.* The player may be informed of a reward prior to engaging the interactive information element(s). *Id.*

If the player chooses to engage any of interactive information elements 54, 56, and 58 in one of a number of ways, an action may be activated. *Id.* at 5:27–38. For example, highlighting icon 54 may activate an on-screen presentation that may be within the course of gameplay or in a sub-screen in the game. *Id.* The on-screen presentation may be, for example, an airliner with a particular airline’s (an advertiser) paint scheme flying across the screen (overlaid on the game environment) trailing a catchphrase of the airline. *Id.* Making character 52 enter car 58 may activate the generation of a roar of an engine starting and revving recorded from an engine of an actual car depicted by car 58. *Id.* Making character 52 slay hamburger monster 56 may generate a sub-screen showing an advertisement of a chain of fast food restaurants, with the sub-screen overlaid on the game environment so as not to be disruptive to gameplay. *Id.*

2. Overview of Aoki

Aoki is titled “Game Advertisement Charge System, Game Advertisement Display System, Game Machine, Game Advertisement Charge Method, Game Advertisement Output Method, Game Machine Control Method and Program.” Ex. 1005, code (54). Aoki’s game advertisement charge system includes a “means for displaying an advertisement on a game screen; means for obtaining displayed amount information concerning a displayed amount of the advertisement displayed; and means for calculating a charge amount to be charged for displaying the advertisement based on the displayed amount information obtained.” *Id.* ¶ 9.

Aoki uses an “advertisement management server 50 [which] is a known server computer system, and can update the content of a game advertisement to be output to a game terminal such as game machine 56.” Ex. 1005 ¶ 62. Advertisement manager server 50 includes an advertisement management database 48 which can output a game advertisement “while a game is being performed at a game terminal.” *Id.* ¶ 67. “[A]dvertisement management database 48 is configured to store ‘advertisement ID’, ‘image path’, ‘game ID’, ‘*advertisement placement location data*’, ‘advertisement period’, ‘advertiser ID’, ‘accumulated charge point’, ‘advertisement target data’, and ‘advertisement placement location rank’, all being mutually associated.” *Id.* ¶ 72 (emphasis added). “‘Advertisement placement location data’ indicates a specific texture image and a location therein in the game identified by the relevant game ID, where the relevant advertisement image is to be embedded. As shown, ‘advertisement placement location data’ includes ‘texture image ID’ and ‘replacing position.’” *Id.* “[R]eplacing position’ is information, expressed in X and Y coordinates, specifying a position in each texture image, where an advertisement image is to be embedded.” *Id.*

3. *Claim 1*

a) *Limitation 1(pre): The Preamble*

The preamble of claim 1 recites “[a] method for retrieving and displaying a hot spot associated with a video game operable on a mobile communication device.” Ex. 1001, 14:36–39. Petitioner argues that Ho teaches the preamble. Pet. 20. Patent Owner does not separately address the preamble. *See* PO Resp. 10–33.

We agree with Petitioner. Specifically, Ho teaches using interactive information elements which are incorporated in a video game that is displayed on a screen. *See, e.g.*, Ex. 1004, code (57); Ex. 1003 ¶¶ 88–89. Because those interactive information elements can display hidden information, such as an advertisement, when activated by a user, they are “hot spots” as used in the ’662 patent. *See* Ex. 1004, 5:9–38; Ex. 1003 ¶ 89. Additionally, “[t]he video game may be run on a device such as . . . a mobile telephone [or] a personal digital assistant.” Ex. 1004, 2:20–22.

b) Limitation 1(a): The “Contacting” and “Providing” Step
Limitation 1(a) recites:

contacting a server for hot spot information to download, comprising providing the server with at least one of: a game for which hot spot information is desired, a scene for which hot spot information is desired, an element for which hot spot information is desired, the model type of the mobile communication device, the service plan to which the mobile device belongs, the service provider for the mobile communications device, the base location of the mobile communication device, the current location of the mobile communication device, a version identifier for hot spot information currently on the mobile communication device, user-identification information, preset location, amount of game-play time, game score, and level of play.

Ex. 1001, 14:39–51 (emphases added). Petitioner argues that either Ho or the combination of Ho and Aoki teaches this limitation. *See* Pet. 21–25; Pet. Reply 2–13. For the reasons discussed below, we are persuaded by Petitioner’s arguments.

(1) Contacting and Providing Information

Ho teaches that a “client end device” such as a “mobile telephone” may “connect[] to a server” to download “new interactive information

element(s)” from the server to the mobile telephone. Ex. 1004, 10:3–6, 10:14–17. Once the connection is made, the client device/mobile telephone will provide the server with information. *Id.* at 10:6–8; Ex. 1003 ¶ 112. That information includes at least one of the items recited in limitation 1a. (We discuss the specific information in the following subsections.⁷).

Patent Owner argues that Ho teaches “that a ‘module’ may be ‘added’ to an already-published video game or a video game ‘in the midst of development.’” PO Resp. 12 (quoting Ex. 1004, 9:26–28). Patent Owner further argues that “[t]he ‘module’ enables an ‘interactive information element’ to be ‘added’ or ‘updated’ to the game by ‘*automatically* downloading and replacing relevant sub-modules of the interactive information element[] in the video game *whenever the player goes online.*”” *Id.* (quoting Ex. 1004, 9:29–33 and citing *id.* at 6:28–36, 9:10–18; second alteration in original); *see also* PO Sur-reply 1. According to Patent Owner, a person having ordinary skill in the art would have understood “that Ho teaches that, when a client device goes online, the server in Ho ‘automatically’ ‘determines whether the interactive information element(s)’ is ‘legitimate’ and/or ‘needs to be changed/renewed,’ and then sends interactive information elements to the client device.” PO Resp. 12 (citing Ex. 1004, 9:29–33, 10:14–25, Fig. 5; Ex. 2006 ¶¶ 58–60). Because the information is automatically sent, Patent Owner argues that “[t]here is no disclosure or suggestion in Ho that the client device in Ho affirmatively contacts and provides to the server any one of the items of information listed

⁷ Petitioner argues that Ho or the combination of Ho and Aoki teach seven of the identified types of information. *See* Pet. 21–24; Tr. 5:13–14. Because we find that the prior art teaches two of them, we need not address Petitioner’s arguments regarding the other five types of information.

in claim 1 of the '662 Patent in connection with seeking an interactive information element(s).” *Id.* (citing Ex. 2006 ¶¶ 57–72); *see also* PO Sur-reply 1.

We do not agree with Patent Owner’s argument. It is true, as Patent Owner argues, that Ho states that the system automatically uploads updates: “The module may allow the at least one interactive information element to be updated by automatically downloading and replacing relevant sub-modules of the interactive information elements in the video game whenever the player goes online.” Ex. 1004, 9:31–33. However, the paragraph continues by describing Ho Figure 5 (not reproduced) and provides more detail on how that updating is performed. Specifically, Ho explains that the server must first determine if the interactive element is legitimate and needs to be changed:

Referring to Figure 5, there is shown a preferred method of client end and server interaction for the present invention. Firstly, the client end device, such as, for example, a personal entertainment system, a video games console, a mobile telephone, a personal digital assistant, a notebook and a desktop computer may be activated and subsequently connected to a server via a network (100). *The server may then obtain data from the client end device and determine whether the interactive information element(s) is legitimate (102) as the interactive information element(s) may be illegally modified.* If the interactive information element(s) is found to be not legitimate, the interactive information element(s) is then removed from the client end device (104). *If the interactive information element(s) is found to be legitimate, the server check information on the client end device relating to the interactive information element(s) (106) and may include the downloading of the incidence of interactive information element(s) activation for processing as described in an earlier portion of the description. Subsequently, the server then determines whether the interactive information element(s) needs to be changed/renewed (108).* If

the interactive information element(s) needs to be changed/renewed, then new interactive information element(s) are sent to the client end device (112). If change/renewal of the interactive information element(s) is not required, then the interactive information element(s) remains the same in the client end device (110).

Ex. 1004, 10:1–19 (emphases added). As Figure 5 and the explanatory text make clear, the client device sends information to the server before the server can determine if the update is necessary, and, if so, the server sends the update. *See id.*; Ex. 1003 ¶¶ 111, 116. Because Ho describes how information must be sent before the automatic update takes place, “automatically downloading” refers to without the user’s input, not without data being sent by the client device.

As will be discussed below, the information that is sent includes version identifier information (subsection 2) or when combined with Aoki, user-identification information (subsection 3).

(2) Version Identifier

Ho describes how new video game modules may be published after the original release. Ex. 1004, 9:25–28. That module may enable new interactive information elements or updated interactive information elements. *Id.* at 9:29–33. Prior to providing the update, Ho teaches that the system will “determine[] whether the interactive information element(s) needs to be changed/renewed (108).” *Id.* at 10:14–19. A person having ordinary skill in the art would have understood that the mobile phone would have to provide version information in order for the server to know whether the update is needed. Ex. 1003 ¶ 116. This is consistent with the knowledge of a person having ordinary skill in the art as reflect in the prior art. *See*

Ex. 1020⁸ ¶ 19 (“When new levels and/or versions are applied to the game the content provider modifies the games content. Modified games content has an associated identifier tag that identifies the version that has been used in its construction.”). Accordingly, Ho teaches providing “a version identifier for hot spot information currently on the mobile communication device.” *See* Ex. 1003 ¶ 116.

Patent Owner argues Ho does not teach or render obvious “contacting a server for hot spot information to download, comprising providing the server with . . . a version identifier for hot spot information currently on the mobile communication device” as recited in claim 1. PO Resp. 19–21; PO Sur-reply 7–10.

First, Patent Owner argues that Ho simply checks some “unspecified” information relating to interactive information elements prior to determining if the element needs to be changed or renewed. PO Resp. 19–20; PO Sur-reply 8; Ex. 2006 ¶ 70. According to Patent Owner, “[t]here is no disclosure or suggestion in Ho, however, of a ‘version identifier’ associated with any interactive information element(s), let alone the provision of such a ‘version identifier’ to Ho’s server by a client device in Ho.” PO Resp. 20 (citing Ex. 2006 ¶ 70). Instead of a version identifier, according to Patent Owner’s expert, a person having ordinary skill in the art would have understood that Ho would simply check “the date and time the interactive information element was last modified, and/or the date and time of the last connection to the server by the client device.” Ex. 2006 ¶ 71; *see also* PO Sur-reply 8–9.

⁸ Hannay, US 2003/0100355 A1, published May 29, 2003.

We do not agree with Patent Owner's argument. Neither claim 1 nor the '662 patent limits what is used as a version identifier. Although a version identifier may be a specific identifier tag to denote the version, claim 1 is not so limited. Even if, as Dr Akl testified, Ho looks at the last date and time the program was modified, that date and time serves as a version identifier which would inform the server what updates are needed; that is, new updates made after the date and time of the last modification.

Patent Owner has not argued that "version identifier" as recited in claim 1 should be limited to any specific modality and we decline to do so on our own. *See* PO Resp. (providing no claim constructions). Accordingly, any such argument is forfeited. *See* Paper 10, 9 (Scheduling Order) ("Any arguments not raised in the response may be deemed forfeited.").

Moreover, the specification of the '662 patent supports a broad reading of the phrase "version identifier." The specification of the '662 patent uses both the terms "version identification numbers" and "a version identifier." *Compare* Ex. 1001, 9:44–53 (using "version identification numbers"), *with id.* at 11:30–45 (using "version identifier"). Had the inventor wanted to limit the claimed invention to a version identification number, as opposed to anything that might act as a version identifier, the inventor knew how to do so. Because the inventor used the broader "version identifier" in the claims, it would be erroneous for us to narrow it to a version identification number.

Moreover, the '662 patent indicates that "any known algorithm for checking whether content has previously been downloaded, thus reducing download redundancy, may be used in an embodiment," not just one using version identifier numbers. Ex. 1001, 11:45–47. That would include

checking for the last date and time the game was updated. Accordingly, version identifier is broad enough to encompass any information used for determining the version, including when the data was last modified.

Second, Patent Owner argues that Petitioner is engaging in “impermissible *ex post* reasoning and hindsight bias that *KSR* warned against.” PO Resp. 20 (citing *TQ Delta, LLC v. Cisco Sys., Inc.*, 942 F.3d 1352, 1361 (Fed. Cir. 2019)); *see also id.* (“Petitioner ‘may not resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.’” (quoting *In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967))). Patent Owner further argues that “the Board likewise ‘cannot accept’ Petitioner’s unsupported speculation ‘as a replacement for documentary evidence for core factual findings.’” *Id.* (quoting *K/S Himpp v. Hear-Wear Techs., LLC*, 751 F.3d 1362, 1366 (Fed. Cir. 2014)). In further support of this hindsight argument, Patent Owner argues that Dr. Zagal “simply repeats Petitioner’s speculative argument with little other support or analysis—and is thus entitled little to no weight.” *Id.* at 20–21.

We do not agree with Patent Owner’s argument. First, although Dr. Zagal’s testimony is substantially the same as the Petition, that is not inconsistent with our rules. Our rules simply require that the expert witness must disclose “the underlying facts or data on which the opinion is based.” 37 C.F.R. § 42.65(a). Dr. Zagal has done just that by citing the portion of Ho that he is relying on and explaining his reasoning. *See* Ex. 1003 ¶ 116. Dr. Zagal also cites to Hannay as corroborating evidence. *Id.* Such testimony is not, as Patent Owner contends, “conclusory.”

Moreover, neither Petitioner nor Dr. Zagal have used impermissible hindsight. Dr. Zagal’s testimony—which we find credible—does not

discuss adding additional elements or modifying Ho. Instead, Dr. Zagal simply explains how a person having ordinary skill in the art would have understood how Ho operates. *See* Ex. 1003 ¶ 116. That is not hindsight.

Third, Patent Owner argues that Petitioner’s reliance on Hannay is improper. PO Resp. 21; PO Sur-reply 9–10. Patent Owner concedes that Hannay discloses that “as ‘new levels and/or versions’ of its video game are created, some ‘games content’ therein may have ‘an associated identifier tag that identifies the version that has been used in its construction.’” PO Resp. 21 (citing Ex. 1020 ¶ 19). However, Patent Owner argues that because the Petition “fails to rely on Hannay in this or any Ground in the Petition” and does not provide a reason to combine Hannay with Ho with a reasonable expectation of success, Petitioner’s use of Hannay is improper. *Id.*; *see also* PO Sur-reply 9–10.

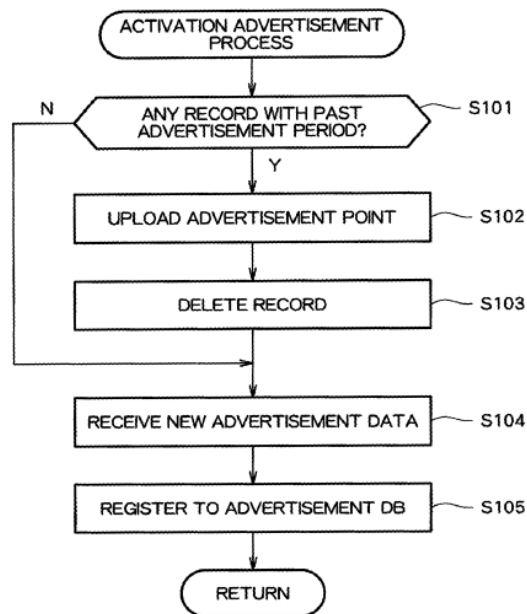
We do not agree with Patent Owner’s argument. Petitioner and Dr. Zagal are not relying on Hannay to supply a missing element. Instead, they are simply using Hannay as corroboration of Dr. Zagal’s testimony as to how a person having ordinary skill in the art would have understood the teachings of Ho. *See* Pet. 23–24; Pet. Reply 9 (“Petitioner also included corroborating evidence that confirmed version identifiers are used to determine if gaming modules or elements need to be changed or renewed.”); Ex. 1003 ¶ 116. There is nothing improper with using additional references as corroboration. *See IXI IP, LLC v. Samsung Elec. Co.*, 903 F.3d 1257, 1262–63 (Fed. Cir. 2018) (affirming PTAB decision of unpatentability where the Board relied on an additional reference that corroborated the expert’s testimony); *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1365 (Fed. Cir. 2015) (“Art can legitimately serve to document the

knowledge that skilled artisans would bring to bear in reading the prior art identified as producing obviousness.”).

(3) *User-identification Information*

Aoki teaches a system for determining how to charge for advertisements based on various factors. Ex. 1005, code (57), ¶ 7. As part of the process, Aoki teaches sending user-identification information as part of the request for additional advertisements. This is shown in Aoki Figure 8, which is reproduced below.

FIG. 8



Aoki Figure 8 “is a flowchart explaining an advertising process executed at the time of activating a game terminal (an activation advertisement process).” Ex. 1005 ¶ 77. In step S101, “a game terminal first reads its advertisement database to check whether or not there is any record with its ‘advertisement period’ no longer including the present date.” *Id.* If no record is found, it proceeds to step S104, in which case a new advertisement is downloaded and then (step S105) a new record is added. *Id.*

However, when an advertisement record is found, then step S102 is performed and “the ‘advertisement point’ included in that record is uploaded to the advertisement management server.” Ex. 1005 ¶ 77. Included in the information the client device sends to the server is “user information, such as the ID of the player who uses the game terminal. The information will be used in an advertisement charge process applied in the advertisement management server.” *Id.* After the record is deleted (step S103), the advertisement is sent (step S104) and a new record added (step S105). *Id.* In other words, in cases where there is an advertisement record, before a new advertisement can be sent from the server to the client device, the client device must send “the ID of the player who uses the game terminal,” that is, “user-identification information,” to the server. *Id.* ¶ 77, Fig. 8; *see also* Ex. 1003 ¶ 117 (“Aoki discloses that a game terminal (e.g., a ‘telephone’) that is operable to run a video game provides an advertisement management server ‘the ID of the player who uses the game terminal’ and a ‘game ID identifying a game’ in order to obtain advertisements.” (quoting Ex. 1005 ¶ 77)).

A person having ordinary skill in the art would have combined Aoki’s teaching of using user-identification information as part of the request for an advertisement with Ho’s system, which also teaches a client device sending information to a server to request hot spot information, such as advertisements. *See* Ex. 1003 ¶¶ 103–107, 111, 114, 117. Because both Ho and Aoki are directed to improvements in game design and monetization from using advertisements (*id.* ¶ 106; Ex. 1004, 1:26–28; Ex. 1005 ¶¶ 6–8), a person having ordinary skill in the art would have looked at both Ho and Aoki and combined the relevant features with a reasonable expectation of

success (Ex. 1003 ¶¶ 103, 106, 117). A person having ordinary skill in the art would have appreciated that using Aoki's teaching of sending user-identification information with Ho, which includes sending information with a request for information relating to interactive information elements (hot spots), allows for targeted advertisements, which was a known advantage in advertising. *Id.* ¶ 117; Ex. 1008⁹ ¶¶ 54–55 (describing advantages of targeted advertising).

Patent Owner argues that the combination of Ho and Aoki does not teach this limitation. PO Resp. 21–25; PO Sur-reply 10–14.

First, Patent Owner argues that “Aoki does not teach propagation of an advertisement in game based on ‘the ID of the player who uses the game terminal.’” PO Resp. 23 (quoting Ex. 2006 ¶ 75); *see also id.* at 22–23 (describing Aoki); PO Sur-reply 11 (same). “Rather,” Patent Owner argues, “at most, Aoki teaches only *post-display* analysis of information regarding a user that viewed an advertisement (at the back end) in the context of setting the charge for that advertisement to its publisher.” PO Resp. 23 (citing Ex. 2006 ¶ 75).

We do not agree with Patent Owner. As discussed above in connection with Aoki Figure 8, Aoki describes a process in which, when there is a record of a past advertisement, user-identification information—the “id of the player”—is sent from the client device to the server (step S102) before the server sends an advertisement (step S105). *See* Ex. 1005 Fig. 8, ¶ 77; Ex. 1003 ¶ 117. Because claim 1 does not have any limitation requiring that hot spot information (the advertisement) be based on the information sent from the client to the server as part of the request, it is

⁹ Sturman, WO 2006/071246 A1, publication date July 6, 2006.

inapposite that Aoki uses the user identification information for post-display analysis. All that matters is that in some circumstances, the client sends user-identification information to the server as part of contacting the server for additional advertisements.

Additionally, it does not matter that this specific order of steps occurs only some of the time. As the Federal Circuit has held, “combinations of prior art that sometimes meet the claim elements are sufficient to show obviousness.” *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1002 (Fed. Cir. 2016); *see also Hewlett-Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314, 1326 (Fed. Cir. 2003) (“[A] prior art product that sometimes, but not always, embodies a claimed method nonetheless teaches that aspect of the invention.”).

Patent Owner’s reliance on Aoki paragraphs 88 and 89 does not require a different result. *See* PO Resp. 22–23. Those paragraphs describe a different flow chart (Figure 12) and have no bearing on our findings regarding the flow chart set forth in Aoki Figure 8. *See* Ex. 1005 ¶ 88. More particularly, Aoki discloses that “user information,” among other information, is “uploaded to the advertisement management server 50 from a game terminal at the time of ending the game.” Ex. 1005 ¶ 88. Although this disclosure shows user identification information being sent after an ad is downloaded, Aoki elsewhere describes transmission of such user information before an ad is retrieved under certain circumstances, as shown in Figure 8. Ex. 1005 ¶ 77.

Second, Patent Owner argues that that the combination of Ho and Aoki would “only provide the server with the ‘ID of the player’ *after* the downloading of an interactive information element and display of the

content associated therewith—for calculation of a ‘charge point’ for the content in accordance with Aoki’s advertisement charge process.” PO Resp. 23 (citing Ex. 2006 ¶ 76); *see also* PO Sur-reply 11. That is, Patent Owner describes what would happen if Aoki’s advertisement charge system, which Patent Owner contends only sends user-identification information after an advertisement has been played, was added to Ho’s system. *See* PO Resp. 23 (citing Ex. 2006 ¶ 76); *see also* PO Sur-reply 11.

We do not agree. For the same reasons discussed above, we do not agree with Patent Owner’s premise that Aoki does not include user-identification information in a request for an additional advertisement. Instead, in some situations, the client device must send user identification information (a user ID) to the server as part of contacting the server for an advertisement before the server sends an advertisement to the client device. *See* Ex. 1005 ¶ 77, Fig. 8.

Moreover, Patent Owner’s argument is based on attempting to bodily incorporate the two references. That is improper. “The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.” *Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC*, 825 F.3d 1373, 1381 (Fed. Cir. 2016) (quoting *In re Keller*, 642 F.2d 413, 425 (C.C.P.A. 1981)). Instead, the question is whether “a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention.” *Id.* (quoting *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007)); *see also In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc) (explaining that whether one reference can be incorporated in another is “basically irrelevant” since the test for obviousness is “not

whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole”).

Instead, we focus on Petitioner’s theory on how a person having ordinary skill in the art would have combined the teaching of Aoki with Ho’s method. In that regard, Petitioner’s argument is not, as Patent Owner focuses on, adding Aoki’s charging system to Ho. Instead, Petitioner and Dr. Zagal argue that a person having ordinary skill in the art would have taken Aoki’s teaching of sending user-identification information and combined it with the information Ho’s client sends to the remote server for information on the interactive information elements (hot spots) to provide targeted advertisements. *See* Ex. 1003 ¶ 117; Pet. 24. And, as discussed above, based on the evidence in the record, including the testimony of Dr. Zagal, that argument is persuasive.

Third, Patent Owner argues “that Dr. Zagal simply repeats Petitioner’s argument verbatim” and is therefore “entitled little to no weight.” PO Resp. 24; *see also* PO Sur-reply 11–12

For the same reasons discussed above in subsection (2), we do not agree with that argument. As with the version identifier argument, Dr. Zagal’s testimony—which we find credible—identifies the portions of Aoki he is relying on, which provide corroboration for his reason to combine the references. *See* Ex. 1003 ¶ 117. That is sufficient to comply with our rules. *See* 37 C.F.R. § 42.65(a).

Fourth, Patent Owner argues that “Petitioner fails to rely on Sturman in this or any Ground in the Petition.” PO Resp. 25; *see also* PO Sur-reply 12. Patent Owner further argues that “Petitioner and Dr. Zagal

also fail to explain why a [person having ordinary skill in the art] would have been motivated to apply Sturman’s specific advertising delivery schemes to Ho’s interactive information elements—let alone demonstrate ‘a reasonable likelihood of success’ in such modification of Ho.” PO Resp. 25; *see also* PO Sur-reply 12.

We disagree with Patent Owner’s argument. Petitioner does not rely on Sturman for a limitation, but as corroboration for Dr. Zagal’s testimony regarding the reason a person having ordinary skill in the art would have combined the relevant teachings of Ho and Aoki. *See* Pet. 24; Pet. Reply 11–12. Because such corroboration evidence is not part of the ground, there is no reason to identify it as such. *See IXI*, 903 F.3d at 1262–63. And, because Petitioner is not relying on Sturman for a limitation, there is no need for Petitioner to argue there was a reason to combine Sturman with Ho and Aoki.

Fifth, in the Sur-reply, Patent Owner argues that “any newly-suggested modification of Aoki to provide the advertisement server with the ‘ID of the player’ prior to downloading the advertising content would render Aoki inoperable for its intended purpose(‘advertisement charge process’).” PO Resp. 13 (citing *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984)).

We do not agree with Patent Owner’s argument. As a preliminary matter, contrary to Patent Owner’s statement, Petitioner did not raise a new argument in its Reply. Instead, Petitioner clearly set forth its theory that the combination of Ho and Aoki would result in a method of the client device sending user-identification information to the server prior to the server sending advertisements to the mobile device in the Petition:

Thus, in the combined Ho-Aoki system the client end device would continue to download from the server interactive

information elements and hidden content, and would do so after providing the server the ID of the player (“user-identification information”) and a game ID (“a game for which hot spot information is desired”). Ex. 1003 ¶ 117. The prior art includes express teachings that would motivate a [person having ordinary skill in the art] to provide the server a user ID and game. *Id.* For instance, a [person having ordinary skill in the art] would have understood and the prior art explains that identification of the user and game would allow the server to provide Ho’s mobile device with advertisements that are targeted to specific users and games.

Pet. 24. Because the argument was raised in the Petition, Patent Owner should have fully responded to it in its Response and should not have waited for the Sur-reply to raise it. *See* PO Resp. 21–25 (not raising inoperability or *Gordon*). By not raising the argument in the Response, Patent Owner forfeited it. *See* Paper 10, 9; *In re NuVasive, Inc.*, 842 F.3d 1376, 1381 (Fed. Cir. 2016) (arguments not properly raised in the Patent Owner’s Response are forfeited).

Moreover, Patent Owner’s argument consists solely of attorney argument. *See* PO Sur-reply 13. Patent Owner does not cite to any testimonial or documentary evidence to support its argument. *See id.* It is well settled that mere attorney argument unsupported by factual evidence is entitled no probative value. *See Elbit Systems of America, LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1359 (Fed. Cir. 2018) (“‘[a]ttorney argument is not evidence’ and cannot rebut other admitted evidence” (quoting *Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017))); *Gemtron Corp. v. Saint-Gobain Corp.*, 572 F.3d 1371, 1380 (Fed. Cir. 2009) (unsworn attorney argument is not evidence).

Sixth, Patent Owner argues that Petitioner’s arguments regarding Massive Incorporated are unsupported. PO Sur-reply 13. Specifically,

Patent Owner argues that although Petitioner argues that “Petitioner’s expert explained that prior to the ’662 patent, advertisers, such as Massive Incorporated, began partnering with game developers to provide targeted advertisements in video games,” the citation discusses the standard for anticipation, not any discussion of Massive Incorporated. *Id.* (citing Pet. Reply 11 (citing Ex. 1003 ¶ 18)).

We agree with Patent Owner that the cited portion of Dr. Zagal’s testimony does not support Petitioner’s argument. Accordingly, we do not rely on that portion of the argument. *See* Ex. 1003 ¶ 18.

However, Petitioner’s Reply also discusses Sturman, a patent application filed by Massive Incorporated:

Petitioner also relied on a prior art patent assigned to Massive (Ex. 1008, Sturman) that provides an express motivation to combine by explaining that it is desirable for a mobile device to provide a server with user-identification information and the game ID so that the advertisements in the video game can be targeted to the user

Pet. Reply 11 (citing Ex. 1008 ¶ 55). To the extent Petitioner’s arguments are supported by Sturman and Dr. Zagal’s testimony on Sturman, we rely on them for the reasons discussed above.

Finally, Patent Owner also challenges Petitioner’s arguments regarding Ellis¹⁰ and Chu.¹¹ PO Sur-reply 14. Because we do not rely on those references, Patent Owner’s argument are moot.

¹⁰ US 8,825,521 B2, issued Sept. 4, 2014 (Ex. 1009).

¹¹ US 2006/0111979 A1, published May 25, 2006 (Ex. 1022).

c) Remaining Undisputed Limitations

Limitations 1(b), 1(b)(1), and 1(b)(2) recite “downloading hot spot information from the server to the mobile communication device, the hot spot information comprising: 1) hidden content for presenting to the user when the hot spot is activated; and 2) coordinate information.” Ex. 1001, 14:53–58. Petitioner argues that Ho teaches limitations 1(b), 1(b)(1), and 1(b)(2). Pet. 25–27. Patent Owner does not separately address these limitations. *See* PO Resp. 10–25.

We agree with Petitioner. Specifically, Ho teaches that “[i]f the interactive information element(s) needs to be changed/renewed, then new interactive information element(s) are sent to the client end device.” Ex. 1004, 10:15–19; *see also* Ex. 1003 ¶ 119. Ho further teaches that the interactive information elements include hidden information, such as an advertisement, that is displayed when the hot spot is activated along with coordinate information as to where the information is displayed. *See* Ex. 1003 ¶¶ 120–121; Ex. 1004, 2:11–12, 5:1–16, 5:27–38, 7:17–23, 8:11–21, 9:33–36, Fig. 3.¹²

Limitation 1(c) recites “designating a non-promotional location in-game associated with activating the hot spot based on the coordinate information.” Ex. 1001, 14:59–61. Petitioner argues that Ho teaches limitation 1(c). Pet. 28–29. Patent Owner does not separately address this limitation. *See* PO Resp. 10–25.

¹² Because Ho teaches the “coordinate information” portion of the limitation, we do not address Petitioner’s alternative argument based on Aoki. *See* Pet. 27.

We agree with Petitioner. Specifically, because Ho’s interactive information elements are at a location which does not display promotional information until the elements are activated, it is a non-promotional location. Ex. 1003 ¶ 125; Ex. 1004, 5:1–7, 5:27–38, 7:17–23. Additionally, Ho teaches that the location of the interactive information elements and the hidden content uses coordinate information provided by the server.

Ex. 1003 ¶ 126; Ex. 1004, 7:17–23, 9:33–36.¹³

Limitation 1(d) recites “displaying an object at the designated non-promotional location.” Ex. 1001, 14:62–63. Petitioner argues that Ho teaches limitation 1(d). Pet. 30. Patent Owner does not separately address this limitation. *See* PO Resp. 10–25.

We agree with Petitioner. Specifically, Ho’s interactive information elements are objects, such as in-game characters or items. Ex. 1003 ¶ 130; Ex. 1004, 2:11–12, 5:1–7, Fig. 3. Moreover, as discussed above, they are displayed prior to being activated, at a specific non-promotional location. Ex. 1003 ¶ 130.

Limitation 1(e) recites “displaying the hidden content when the user activates the hot spot.” Ex. 1001, 14:64–65. Petitioner argues that Ho teaches limitation 1(e). Pet. 30. Patent Owner does not separately address this limitation. *See* PO Resp. 10–25.

We agree with Petitioner. Specifically, Ho teaches that when an interactive information element is activated, the hidden promotional information is displayed. Ex. 1003 ¶ 132; Ex. 1004, 5:27–38.

¹³ Because Ho teaches the “coordinate information” portion of the limitation, we do not address Petitioner’s alternative argument based on Aoki. *See* Pet. 29.

d) Conclusion Regarding Claim 1

For the reasons set forth above, Petitioner has demonstrated by a preponderance of the evidence that the subject matter of claim 1 would have been obvious over Ho and Aoki.

4. Analysis of Claims 2–11 and 13–19

Petitioner argues that the combination of Ho and Aoki teaches the limitations recited in claims 2–11 and 13–19 and that a person having ordinary skill in the art would have combined the teachings with a reasonable expectation of success. Pet. 30–36. Petitioner’s arguments are supported by citations to the prior art and the testimony of Dr. Zagal. *See id.* We have reviewed Petitioner’s arguments and evidence, agree with them, and, therefore, adopt Petitioner’s arguments and evidence as our own.

Patent Owner does not separately address claims 2–6, 8–11 and 14–19. *See* PO Resp. 25–28. For claim 7, Patent Owner relies on its arguments regarding version identifier, which we addressed in Section II.E.3.b.(2). PO Resp. 26. For claim 13, Patent Owner relies on its arguments regarding user-identification information, which we addressed in Section II.E.3.b.(2). PO Resp. 26–27.

Accordingly, Petitioner has shown by a preponderance of the evidence that the subject matter of claims 2–11 and 13–19 would have been obvious over Ho and Aoki.

F. Obviousness Based on Other Grounds

Petitioner argues that (1) claims 1–20 would have been obvious over Jiau and Aoki, (2) claims 1–11 and 13–19 would have been obvious over Ho Kim, and (3) that claims 1–20 would have been obvious over Jiau and Kim. Pet. 3, 36–57, 59–72. Because we determine that claims 1–11 and 13–19

would have been obvious in light of Ho and Aoki, we do not address the parties' arguments regarding those claims based on these additional grounds. *See Boston Sci. Scimed, Inc. v. Cook Gp. Inc.*, 809 F. App'x 984, 990 (Fed. Cir. 2020) ("We agree that the Board need not address issues that are not necessary to the resolution of the proceeding."). With regard to claims 12 and 20, for the reasons discussed below, Petitioner has not shown by a preponderance of the evidence that those claims are unpatentable as obvious over the combination of either (1) Jiau and Aoki or (2) Jiau and Kim.

1. Overview of Jiau

Jiau is titled "Method and Apparatus for Providing Hotspots in a Shared Virtual World" and "relates . . . to a method and apparatus that allow users to access and explore a multi-owner, three-dimensional virtual world in a network environment." Ex. 1006, code (54), 1:7–9.

Jiau describes prior "multi-player games[whereby] players can [see] representations of each other in the three-dimensional world as they move within some predetermined distance of each other." Ex. 1006, 1:19–21. Jiau generalizes "[s]uch three-dimensional games[as] involv[ing] a predetermined, predefined virtual world that does not change . . . [—]defined by the game designer and the players move within the predefined spaces." *Id.* at 1:22–24.

Jiau's invention provides "[a] virtual world . . . divided into a plurality of 'lots,' similar to 'lots' of real estate in the real world" and whereby "[u]sers can reserve . . . these lots to design as they please." Ex. 1006, 1:32–2:2. "[U]sers access the virtual world via client data processing systems using a networking model such as the World Wide Web." *Id.* at 2:4–5. "The server assigns each newly registered lot to a location in

the virtual world[,] stores the lots in a memory or database,” and thus provides “each lot . . . an ownership attribute.” *Id.* at 2:7–9. “Users can alter and modify their lots, even while others are visiting them in the virtual world[;] the lots . . . can be constantly updated and changed.” *Id.* at 2:29–31.

“Users can include objects in their lots that allow a virtual person walking in their lots to move to another lot that is not physically contiguous to their lot,” e.g., the virtual person “walks into it” for “teleporting.” Ex. 1006, 2:13–16. “Users can also define objects in their lots that have certain behaviors, such as playing an ad or animation when selected.” *Id.* at 2:19–20. “Users can also associate objects with the URLs of pages on the world wide web, so that a web page is displayed when the object is approached or activated.” *Id.* at 2:20–21.

“If the user . . . turn[s and] . . . a new lot is viewed, the client system determines whether it needs to load new lots or objects.” Ex. 1006, 11:7–9. “If the user walks into an object or selects an object though a mouse click or similar means . . . , the client system takes various actions . . . depending on how the object is defined.” *Id.* at 11:16–18. “This activity is part of the attributes of object 320.” *Id.* at 15:7 (citing Fig. 13(b) for such attributes of an attribute). One attribute is that, per a “hotpace link defined around object 320,” the “object 320 has a pop-up advertisement 1182 that is activated when the user’s location becomes within a predetermined virtual distance in the virtual world.” *Id.* at 15:4–8.

“Hot spaces are defined as two or three-dimensioned areas or the virtual world (which may or may not have an object located therein) that have an associated link.” Ex. 1006, 15:32–16:2; *see also id.* at 17:1 (“[A] ‘hotpace’ is a predetermined space surrounding an object.”). “For

example, when a user walks within ten virtual feet of a hotspace, a pop-up advertisement may appear.” *Id.* at 17:1–2.

“Hot spots are defined as areas of an object (or a whole object) that have an associated link.” Ex. 1006, 15:31–32. “For example, when the user touches or selects an object, a pop-up advertisement may appear.” *Id.* at 16:31–32.

Figures 11(d) and 11(e) of Jiau are reproduced below.

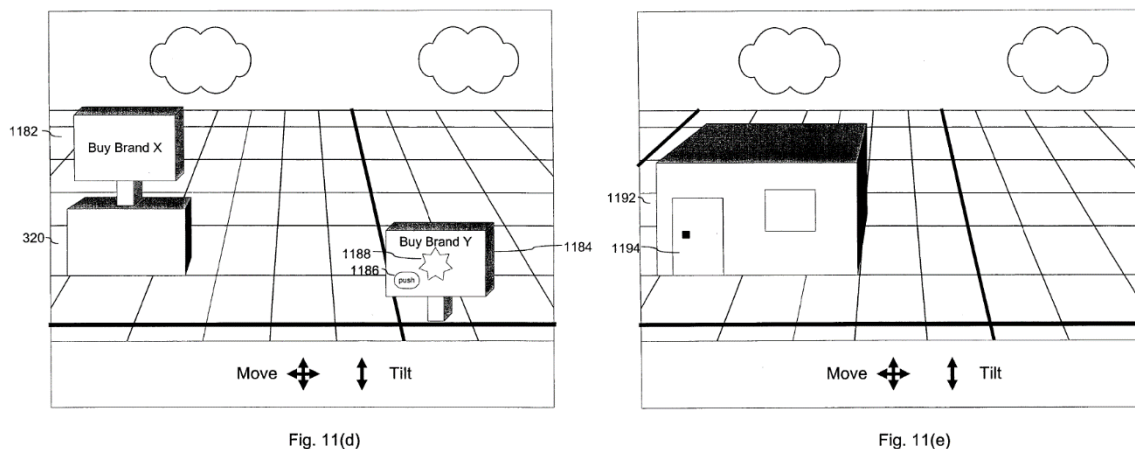


Figure 11(d) illustrates an example of a three-dimensional view of a virtual world having advertisements activated by user actions, and Figure 11(e) illustrates an example of an object having a hotspot allowing a user to enter an interior of the object. Ex. 1006, 5:28–31. In Figure 11(d), an object 320 has a pop-up advertisement 1182 that is activated when the user’s location is within a predetermined virtual distance in the virtual world. *Id.* at 15:3–17. When the user approaches object 320, advertisement 1282 pops up. *Id.* This activity is part of the attributes of object 320—there is a hotspace link defined around object 320. *Id.* Figure 11(d) further shows a static object 1184 that is always visible when it comes into view in the three-dimensional representation of the virtual world. *Id.* Object 1184 is a sign containing an

advertisement, and there is a hotspot link 1186 defined on object 1184. *Id.* When the user clicks or otherwise selects hotspot link 1186 (e.g., by approaching it), an animation 1188 (represented in the figure by a star) spins, changes color, or animates. *Id.* Hotspot 1186 and the activity associated with object 1184 (as well as the appearance of object, including the advertising text) are defined as attributes of object 1184. *Id.*

Figure 11(e) shows an object 1192 having a hotspot link 1194 (e.g., a door shape) allowing the user to enter an interior of the object. Ex. 1006, 15:18–16:2. The user enters the interior of the object when the user activates hotspot 1192 (i.e., when the user collides with, or passes sufficiently close to, the hotspot). *Id.* When a user activates hotspot 1194, the user passes to the interior of object 1192, and the client computer renders an interior view of the object. *Id.* Other objects that appear similar to object 1192 may have hotspots that are effectively teleportation links, so that the user steps through a door, but ends up in another location in the virtual world (or in a sub-world, or a related virtual world). *Id.* Hot spots are areas of an object (or a whole object) that have an associated link, and hot spaces are two or three-dimensioned areas that have an associated link. *Id.*

2. *Overview of Kim*

Kim is titled “Advertisement Method Using Game Program on the Internet and Method for Executing the Game Program Having the Advertisement According to the Advertisement Method” and is directed to “a method of advertisement which is applied to a game on the internet.” Ex. 1007, code (54), 1:14–16.

3. *Claims 12 and 20*

Claim 12 depends from claim 1 and recites the following additional limitation: “wherein the hidden content comprises a second hot spot.” Ex. 1001, 15:25–26. Claim 20 depends from claim 13 and recites the same additional limitation. *Id.* at 16:30–31.

Petitioner argues that Jiau¹⁴ teaches the additional limitation recited in claims 12 and 20. Pet. 55–57, 71, 72 (citing Ex. 1003 ¶¶ 205–206; Ex. 1006, 15:17–31, claims 8–10 (21:27–22:2), Fig. 11(f)). Specifically, Petitioner argues that Jiau teaches that an object may be associated with “a plurality of hotspots” and that each hotspot may be “activated separately” with “different hotspot activities associated therewith.” Pet. 55–56 (quoting Ex. 1006, claims 8–10 (21:27–22:2)). Petitioner further argues that Jiau Figure 11(e) teaches an object with a hotspot link 1194 (a door) that, when activated, opens to the interior of the object, shown in Jiau Figure 11(f), which will have a hidden hotspot associated with furniture. *Id.* at 56 (citing Ex. 1006, 15:17–31; Ex. 1003 ¶ 206); *see also* Pet. Reply 20–21.

Dr. Zagal’s testimony is substantially the same as Petitioner’s argument and is reproduced below in its entirety:

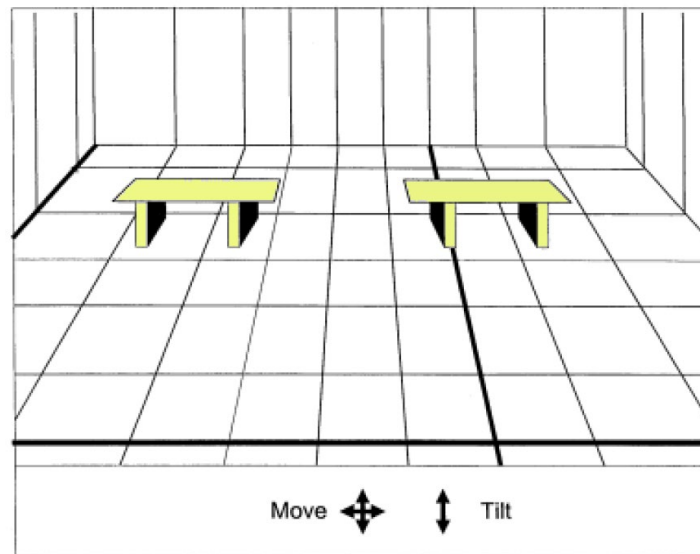
205. In my opinion, Jiau discloses and renders obvious the additional limitation of claim 12.

206. For example, Jiau teaches that an object may be associated with “a plurality of hot spots” (Ex. 1006, Claim 8) and that each hot spot may be “activated separately” with “different hotspot activities associated therewith” (*id.*, Claims 9–10). For instance, Jiau discloses that “Fig. 11(e) shows an example of an object 1192 have a hotspot link 1194 (e.g., a door-shape).”

¹⁴ For both the (1) Jiau and Aoki and (2) Jiau and Kim grounds, Petitioner relies only on Jiau for the additional element recited in claims 12 and 20. Pet. 36–57, 59–72. Accordingly, we do not address Aoki or Kim.

Ex. 1006, 15:17-31. When a user activates the hotspot, for instance “when he collides with or passes sufficiently close to the hotspot,” hidden content may be displayed, such as the “interior of object 1192” that is shown in Figure 11(f). *Id.* The hidden content, for instance, the furniture in the building interior (yellow) may comprise additional hot spots which are similarly activated when a user “collides with or passes sufficiently close” to them.

Ez. 1003 ¶¶ 205–206. Dr. Zagal testimony also includes a partially colored version of Jiau Figure 11(f), reproduced below.



Ex. 1003 ¶ 206. Jiau Figure 11(f) “shows an example of an interior of the object of Fig. 11(e).” Ex. 1006, 5:32. Dr. Zagal had colored the two pieces of furniture yellow. Ex. 1003 ¶ 206.

We are not persuaded by Petitioner’s argument. First, the cited language in the Jiau’s claims does not support Petitioner’s argument and Dr. Zagal’s opinion that Jiau’s hotspots contain hidden content that is itself a hotspot. Although Jiau claim 8 refers to an “object [having] a plurality of hotspots,” nothing in Jiau claim 8 teaches or suggests a hotspot having hidden content that is a hotspot. *See* Ex. 1006, 21:27; Ex. 2006 ¶ 103. Rather, it simply describes an object having multiple hotspots, such as a

door and a button. Ex. 2006 ¶¶ 102–103. For example, Jiau describes how a hotspot can be the entirety of an object (Ex. 1006, 3:27–31) or a portion of an object, such as Jiau Figure 11(d) showing hotspot link (object 1186) taking up only a portion of object 1184 (*id.* at Fig. 11(d), 15:10–17). *See also* Ex. 2006 ¶ 102.

Similarly, nothing in Jiau claims 9 and 10 indicates the presence of a hotspot containing hidden content that is itself a hotspot. Instead, the claims simply describe how an object having more than one hotspot can have the hotspots activated by different actions or activated separately. Ex. 1006, 21:29–22:2; Ex. 2006 ¶ 103. For example, Jiau describes how hotspots can be activated by either being in a certain location or performing a specific action, such as touching or selecting an object. Ex. 1006, 15:9–17, 16:30–32; Ex. 2006 ¶ 103. There is nothing in the claim language that teaches or suggests a hotspot having hidden content that is a hotspot as recited in claim 12. *See* Ex. 2006 ¶ 103.

Second, Jiau Figures 11(e) and 11(f) and the corresponding section of the specification do not support Petitioner’s argument. Jiau describes Figures 11(e) and 11(f) as follows:

Fig. 11(e) shows an example of an object 1192 having an hotspot link 1194 (e.g., a door-shape) allowing a user to enter an interior of the object. In the example, the user enters the interior of the object when he activates the hotspot 1192 (i.e., when he collides with or passes sufficiently close to the hotspot). Fig. 11(f) shows an example of an interior of object 1192 of Fig. 11(e). When a user activates hotspot 1194 of Fig. 11(e), the user passes to the interior of object 1192 and client computer 106 renders an interior view of the object. The interior view of Fig. 11(f) is preferably defined as an attribute of object 1192. In the example, the interior of object 1192 is the same size as its exterior, although this does not have to be the case. If the interior

and exterior are different sizes, a sub-coordinate system is used for the interior of the object. In the example, if the user turns around in the interior of the object, he will see the inside walls of the object. Other objects that appear similar to object 1192 can have hotspots that are effectively teleportation links, so that the user steps through a door, but ends up in another location in the virtual world (or in a sub world or a related virtual world).

Ex. 1006, 15:18–31. Nothing in Jiau’s specification indicates that the pieces of furniture shown in Jiau Figure 11(f) are either objects or have hotspots associated with them. *See id.*; Ex. 2006 ¶ 106. Indeed, the specification is silent about the furniture and Jiau Figure 11(f) does not contain any item identification numbers pointing to the furniture. Ex. 1006, 15:18–31, Fig. 11(f).

Other portions of the specification are similarly silent about there being hotspots inside the interior of an object. The specification describes different types of objects: “solid objects,” “objects with interior,” “object with pass-through,” “object with associated action,” “teleportation object,” and “URL object.” Ex. 1006, 11:19–20:12. With regard to “object with interior” such as the building in Figure 11(e) (object 1192) the specification states:

2) object with interior - walking into this type of object will cause the user to view a completely different view representing the interior of the object (e.g., walking through a doorway). This type of object has a link to its interior. This movement can also be a teleportation to a completely different location in the virtual world, as described below. Some objects have interiors that are the same size as their exteriors. Some objects have interiors that are larger or smaller than their exteriors. These objects will use a sub-coordinate system for locations within their exteriors.

Id. at 11:21–28. Although the specification describes entering the object, there is no discussion of anything in the interior being a hotspot. *See id.*

Third, the following testimony from Dr. Zagal is not credible: “The hidden content, for instance, the furniture in the building interior (yellow) may comprise additional hot spots which are similarly activated when a user ‘collides with or passes sufficiently close’ to them.” Ex. 1003 ¶ 206. Although Dr. Zagal cites to Jiau’s specification (Ex. 1006 15:17–31), as discussed above, we do not find support for his opinion that the furniture comprises an additional hotspot. Dr. Zagal and Petitioner attempt to make a logical leap, but do not sufficiently explain why it is so. That is not sufficient to meet Petitioner’s burden to demonstrate unpatentability by a preponderance of the evidence.

In reaching this determination, we are bound by the theory set forth in the Petition. *See SAS Inst. Inc. v. Iancu*, 584 U.S. 357, 363 (2018) (“[I]n an *inter partes* review the petitioner is master of its complaint. . . . [I]t’s the petitioner, not the Director, who gets to define the contours of the proceeding.”). Petitioner does not argue that it would have been obvious to a person having ordinary skill in the art to modify Jiau to add a hot spot (hidden content) to an activated hot spot (hidden material), such as the interior of a building. *See* Pet. 55–56. That is, the Petition lacks any argument as to why a person having ordinary skill in the art would modify Jiau. *See id.* Instead, the Petition is limited to an argument that Jiau has that feature. *See id.* We limit ourselves to that argument, and find it lacking.

Accordingly, Petitioner has not shown by a preponderance of the evidence that the combination Jiau with either Aoki or Kim teaches the additional limitation recited in claims 12 and 20.

III. CONCLUSION¹⁵

For the foregoing reasons, we conclude that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of claims 1–11 and 13–19 of the '662 patent. Specifically, Petitioner has shown by a preponderance of the evidence that claims 1–11 and 13–19 would have been obvious under 35 U.S.C. § 103(a) in view of Ho and Aoki. Petitioner has not shown by a preponderance of the evidence that claims 12 and 20 would have been unpatentable in view of either (1) Jiau and Aoki or (2) Jiau and Kim.

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–11, 13–19	103(a)	Ho, Aoki	1–11, 13–19	
1–20	103(a)	Jiau, Aoki ¹⁶		12, 20

¹⁵ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

¹⁶ As explained above, because we determine that claims 1–11 and 13–19 are unpatentable as obvious over Ho and Aoki, we decline to address those claims on this ground.

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–11, 13–19	103(a)	Ho, Kim ¹⁷		
1–20	103(a)	Jiau, Kim ¹⁸		12, 20
Overall Outcome			1–11, 13–19	12, 20

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, Petitioner has shown by a preponderance of the evidence that claims 1–11 and 13–19 of the '662 patent are unpatentable; and

FURTHER ORDERED that, Petitioner has not shown by a preponderance of the evidence that claims 12 and 20 of the '662 patent are unpatentable;

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

¹⁷ As explained above, because we determine that claims 1–11 and 13–19 are unpatentable as obvious over Ho and Aoki, we decline to address those claims on this ground.

¹⁸ As explained above, because we determine that claims 1–11 and 13–19 are unpatentable as obvious over Ho and Aoki, we decline to address those claims on this ground.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PLR WORLDWIDE SALES LTD.,
Petitioner,

v.

FLIP PHONE GAMES, INC.,
Patent Owner.

IPR2024-00209
Patent 9,427,662 B2

Before DAVID C. MCKONE, DANIEL J. GALLIGAN, and
SCOTT B. HOWARD, *Administrative Patent Judges*.

GALLIGAN, *Administrative Patent Judge*, Concurring in Part and
Dissenting in Part.

I concur that claims 1–11 and 13–19 are unpatentable and join all of the majority’s decision in that regard. I respectfully disagree, however, with the majority’s finding in Section II.F.3 that Petitioner has not shown by a preponderance of the evidence that Jiau teaches the additional limitation recited in claims 12 and 20 that “the hidden content comprises a second hot spot.”

Jiau's Figure 11(f) is reproduced below.

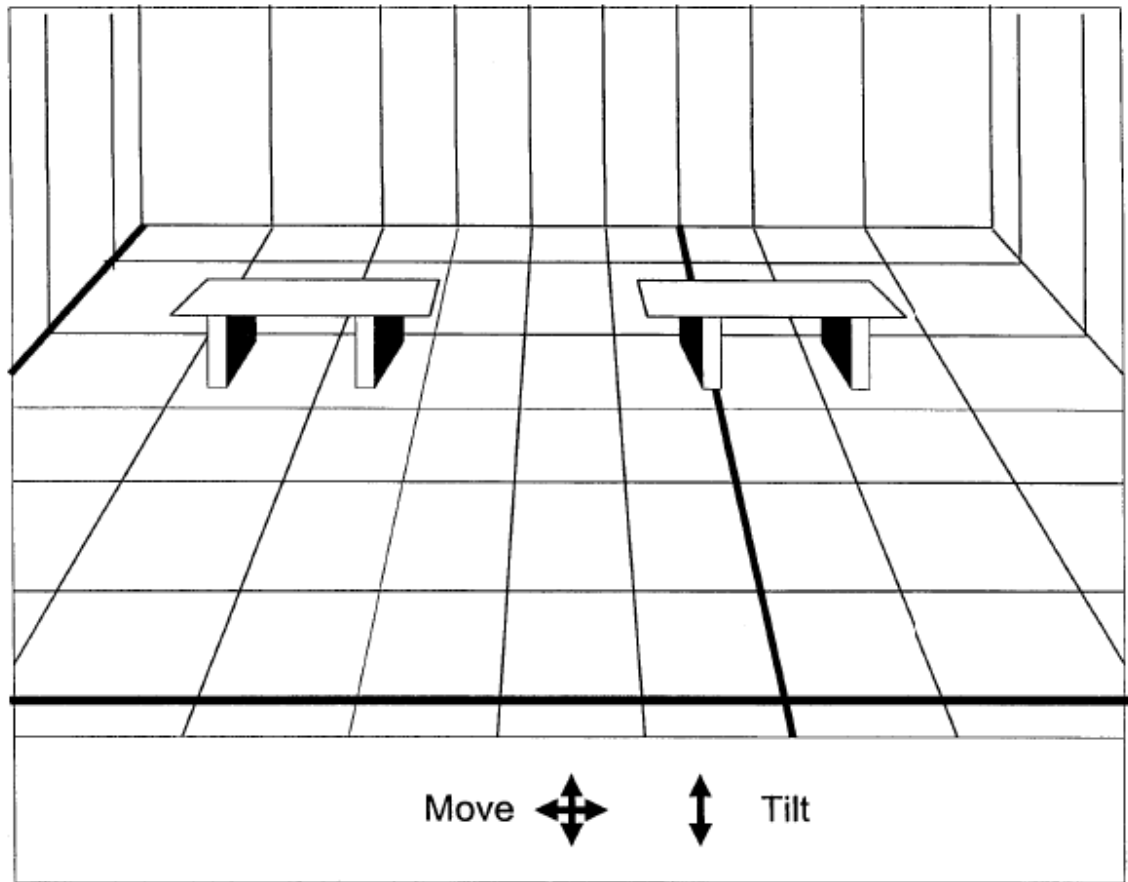


Fig. 11(f)

Jiau's Figure 11(f) above "shows an example of an interior of object 1192 of Fig. 11(e)" that appears "[w]hen a user activates hotspot 1194 of Fig. 11(e)." Ex. 1006, 15:21–23. Figure 11(f) shows two benches (furniture).

Petitioner's contention is that the interior of object 1192, which Petitioner maps to the recited "hidden content," "may comprise additional hotspots associated with the furniture (yellow) in the building interior that are activated when a user 'collides with or passes sufficiently close' to them." Pet. 56 (quoting Ex. 1006, 15:19–21). I find this contention persuasive based on Jiau's teachings.

Jiau discloses various examples of objects, such as “solid objects,” “objects with interior,” “object with pass-through,” “object with associated action,” “teleportation object,” and “URL object,” and Jiau specifies what happens when interactions with these objects occur. Ex. 1006, 11:19–20:12. For example, walking into a solid object “will cause the user to stop (this type of object does not have links to any other object or lot).” Ex. 1006, 11:19–20. Thus, a solid object would not have a hot spot. Walking to an “object with associated action,” however, “will cause the user to view an action, such as a pop-up ad or an animation.” Ex. 1006, 12:1–2. Thus, an “object with associated action” would have a hot spot.

I would find that Jiau’s inclusion of benches within the interior of object 1192 suggests, at the very least, that they are objects. *Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1049 (Fed. Cir. 2019) (“[A] reference must be considered not only for what it expressly teaches, but also for what it fairly suggests.” (quotations and citation omitted)). I further find persuasive Petitioner’s contention and Dr. Zagal’s testimony that the furniture “may” have hot spots (Pet. 56; Ex. 1003 ¶ 206) because it is consistent with Jiau’s disclosure that certain types of objects have hot spots. Ex. 1006, 11:19–20:12. I believe this reading of Jiau is consistent with Jiau’s overall teachings of “allow[ing] users to explore and interact in a multi-owner, three-dimensional virtual world.” Ex. 1006, 1:31–32. Although a game implemented according to the teachings of Jiau *could* have the user enter a blank room with no further functionality, I believe a reasonable reading of Jiau fairly suggests to a person of ordinary skill in the art including functionality via the disclosed objects in spaces encountered by the user. *See* Ex. 1006, 11:16–18 (“If the user walks into an object or selects an object

though a mouse click or similar means (step 216), the client system takes various actions (step 224), depending on how the object is defined.”).

Although Jiau does not expressly describe the benches in Figure 11(f) as “objects,” I would not expect Jiau or any reference to belabor all of the possibilities associated with every item in a figure once the reference had laid out those possibilities in detail, as Jiau does by specifying types of objects and associated actions.

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Patent 9,427,662 B2

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